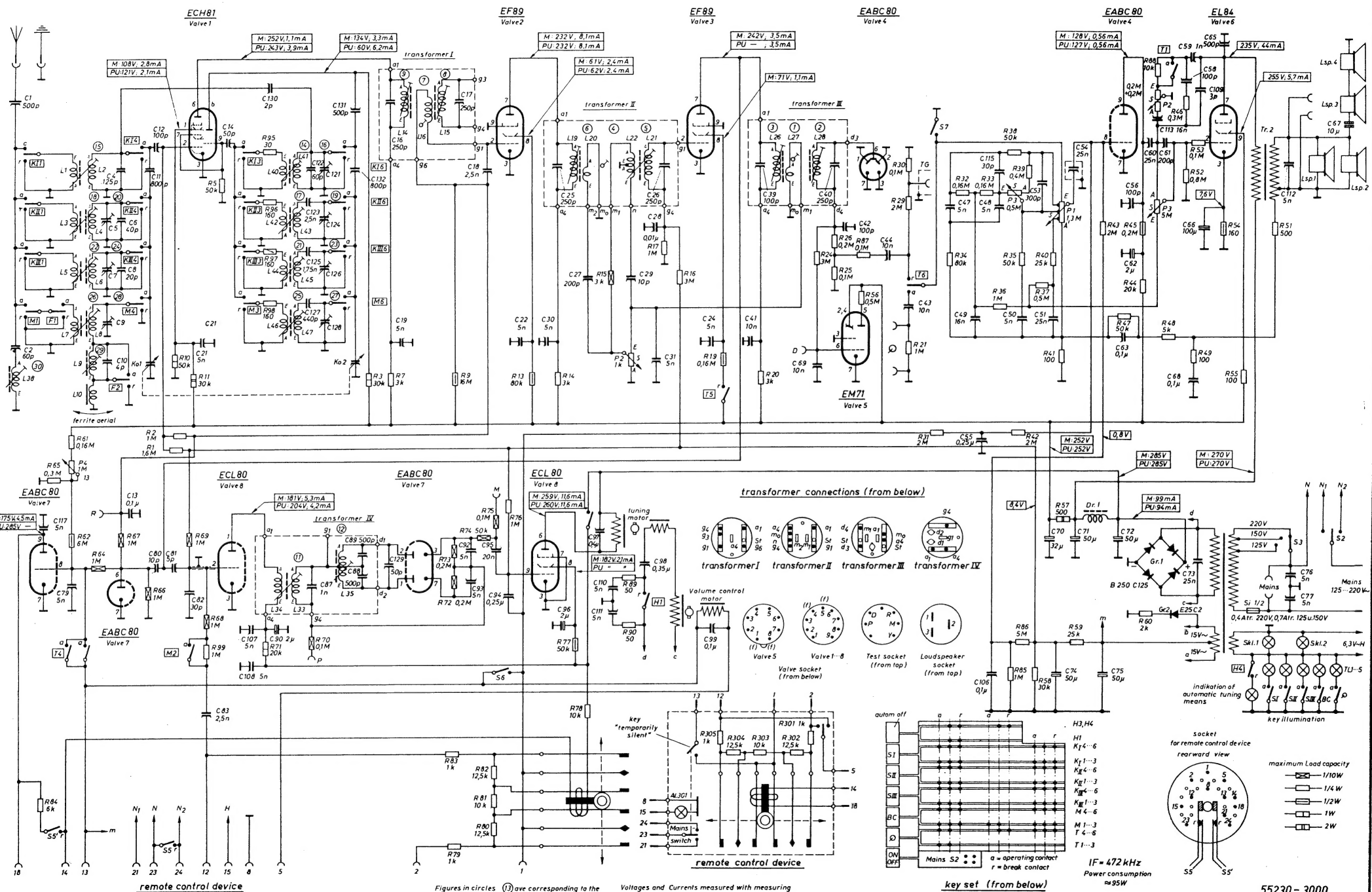


Wiring Diagram for SABA UW465



Aligning Instructions for SABA-UW 465 Automatic

Tuning the AM Section

- Apply up to approx. 4.5 volts on to the normal voltage (negative to socket R, positive to socket Y).
- Connect loudspeaker and AF voltmeter to output terminals.
- Set treble control to minimum treble output (turned anticlockwise as far as it will go).
- Depress key M.
- Depress key „Automatic off“.
- To the grid of the mixer valve ECH 81 apply the generator set to 472 kc/s, 30% AM modulated, via 10,000 pF.

472-kc/s IF tuning, 2-circuit filter (diode filter)

- Adjust coupling subcritically by means of 1.
- Tune circuits I and II to maximum by means of 2 and 3.
- If necessary, repeat processes 1. and 2.
- Adjust coupling critically by means of 1 (maximum output voltage), and then couple subcritically by turning it anticlockwise until the output voltage falls by 20%.

2-circuit filter (between the two EF 89 valves)

- Adjust coupling subcritically by means of 4.
- Tune circuits I and II to maximum by means of 5 and 6.
- If necessary, repeat processes 1. and 2.
- Adjust coupling critically by means of 4 (maximum output voltage), and then couple subcritically by turning it anticlockwise until the output voltage falls by 20%.

2-circuit filter (after ECH 81)

- Adjust coupling subcritically by means of 7.
- Tune circuits I and II to maximum by means of 8 and 9.
- If necessary, repeat processes 1. and 2.
- Adjust coupling critically by means of 7 (maximum output voltage) and then couple supercritically by turning it clockwise until the output voltage falls by 30%.

Aligning the 472-kc/s Control Filter

- Switch on the „Automatic“ (Release the „Automatic off“ key).
- Connect micro-ammeter with zero in centre between sockets M and Y.
- Connect D/C voltmeter (R=500 KOhms, 30-volt range) to sockets P and Y.
- Undertake alignment between P and Y at approx. 12 volts.
 - Turn coupling screw 10 as far as it will go in a clockwise direction, and then screw it back 2 turns.
 - By means of 11, tune primary circuit to give maximum on voltmeter P.
 - Adjust secondary circuit by 12 to give zero flow in rectilinear section of discriminator curve on micro-ammeter.
 - Repeat 2. and 3. until correct.

When the control filter is properly aligned, the control motor must be motionless. If now the IF generator is thrown a few kc/s out of tune in either direction, the motor must run anticlockwise or clockwise as the case may be. In addition, when thrown out of tune by the same amount either + or -, the voltage at M must be approximately the same (Symmetry of control discriminator).

Aligning IF Absorption Circuit 472 kc/s.

- Connect HF generator to antenna socket via dummy antenna (200 pF and 400 ohms in series).
- Depress key M. Turn ferrite antenna as far as it will go (i.e. switch it off). L-tuning of IF absorption circuit to antenna connection plate: tune 30 to give minimum on output voltmeter.

Tuning of Oscillator and Antenna Circuit

- Check: With pointer stop on right, pointer must be at corresponding point on scale. The rotor of the oscillator must fit flush in the stator.

- Turn ferrite directional antenna as far as it will go in either direction.
 - Depress key S 1: tune generator and receiver to 15.2 Mc/s = 19.7 m. L-tuning of oscillator and antenna circuit: trim 14 and 15 to give maximum.
 - Tune generator and receiver to 22.8 Mc/s = 13.2 m. C-tuning of oscillator: tune 16 to give maximum.
 - If necessary repeat 1. and 2.
 - Depress key S 2: tune generator and receiver to 7.2 Mc/s = 41.7 m. L-tuning of oscillator and antenna circuit: trim 17 and 18 to give maximum.
 - Tune generator and receiver to 12.0 Mc/s = 25.0 m. C-tuning of oscillator and antenna circuit: tune 19 and 20 to give maximum.
 - If necessary, repeat 4. and 5.
 - Depress key S 3: tune generator and receiver to 1.9 Mc/s = 158.0 m. L-tuning of oscillator and antenna circuit: trim 21 and 22 to give maximum.
 - Tune generator and receiver to 4.8 Mc/s = 62.5 m. C-tuning of oscillator and antenna circuit: trim 23 and 24 to give maximum.
 - If necessary repeat 7. and 8.
- Switch on ferrite antenna.
- Couple generator to ferrite antenna by means of a ferrite rod or coil.
 - Depress key M: adjust generator and receiver to 570 kc/s. L-tuning of oscillator and antenna circuit: trim 25 and 26 to give maximum.
 - Tune generator and receiver to 1520 kc/s. C-tuning of oscillator and antenna circuit: trim 27 and 28 to maximum.
 - If necessary repeat 10. and 11.
- Turn ferrite antenna switch to outdoor aerial' position.
- Connect HF generator to antenna socket via dummy antenna.
 - Tune generator and receiver to 570 kc/s. L-tuning of ferrite antenna substitute coil: trim 29 to give maximum.

Adjustment of sensitivity of station finder on AM

- Make control effective again (remove the 4.5 volts between R and Y). Adjust the controller 13 in such a way that the movement of the station finder is switched off when there is an input signal of 100-200 μ V.

